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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/415,471	10/08/1999	MARK E. GARDINER	28724/35321	4869

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ANTHONY G SITKO MARSHALL O'TOOLE
GERSTEIN MURRAY & BORUN
6300 SEARS TOWER
233 SOUTH WACKER DRIVE
CHICAGO, IL 606066402

EXAMINER

NGUYEN, SANG H

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 03/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N . 09/425,471	Applicant(s) GESCHWENDER ET AL.	
	Examiner Sang H Nguyen	Art Unit 2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

It is in response to applicant's amendment received and entered on 01/15/02.

Drawings

1. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 01/15/02 have been approved by the Examiner.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: In particular, the reference "A1" and "A2" as shown in figures 2, 4, and 6-10; the reference "d1" and "d2" as shown in figure 3; and the reference "P" and "P" as shown in figures 5 and 7-11. Correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 1, 12, and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1, 12, and 24; the phrase "each optical structure has at least one characteristic selected from the group consisting of an amplitude, a period, and an aspect ratio" is not clear because what applicant means "**amplitude**", "**period**", and "**ratio**".

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wortman et al (U.S. Patent No. 5,771,328) .

Regarding claims 1, 4, 7-12, 15, 18-19, 24-25, and 27; Wortman et al disclosed an optical element comprising:

* an optical transmissive film (10 of figure 1 and 30 of figure 3) having a first surface (12 of figure 1) and a second surface (14 of figure 1), and a first edge and a second edge (figures 1-2);

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* a plurality of optical structures (16 of figure 1 and 36 of figure 3) formed on the first surface (12 of figure 1 and 34 of figure 3) in a predetermined pattern as square or triangle (see table 1), wherein each optical structure (16 of figure 1) has selected at least one characteristic from the group consisting of an amplitude, a period and an aspect ratio (figures 3-5 and col.4 lines 10-39 and col.4 line 62 to col.5 lines 22 and see example) and wherein characteristic of the optical structure (16 of figure 1) has a first value for a first predetermined location (figure 1, for example, a peak [17 of figure 1] and two side surfaces [20 of figure 1]) on the transmissive film (10 of figure 1) between the first edge and the second edge (figures 1-2) and the characteristic of the optical structure (16 of figure 1) has a second value for a second predetermined location (figure 1) on the transmissive film (10 of figure 1) between the first edge and the second edge (figures 1-2), and the first predetermined location on the transmissive film has different location from the second predetermined location on the transmissive film (figures 1-2);

* a lightguide (154 of figure 8) having an input surface (figure 8) and an output surface (figure 8); and

* the film (158 of figure 8) being coupled to one of the input surface and the output surface of lightguide (154 of figure 8 and col.6 lines 17-45). See figures 1-8.

Wortman et al shown to teach all of the features of the claimed invention except for wherein the first value of characteristic of the optical structure has different value from the second value of characteristic of the optical structure. However, from the same field of endeavor, Suzuki shows that it is known in the art to provide the first value of characteristic of the optical

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structure has different value from the second value of characteristic of the optical structure (abstract and figures 1-12). Thus it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Wortman et al's the optical element device with the first value of characteristic of the optical structure has different value from the second value of characteristic of the optical structure as shown in the device of Suzuki for the purpose of transmission liquid crystal display using in lightguide and optical film.

Regarding claims 2-3 and 16-17; figures 3-6 of Wortman et al discloses the characteristic of optical structure is decreased in intensity at the second predetermined location from the first predetermined location is adjacent the first edge (col.4 lines 62-67 and col.5 lines 1-5).

Regarding claims 5-6 and 20-21; Wortman et al teaches that a discrete optical formation of each optical structure (16 of figure 1) within the first surface (12 of figure 1) is selected at least one from group of a prism , a line, square, a dot, or an ellipse (abstract).

Regarding claims 22-23; Masaki teaches that the optical transmissive film (5 of figure 2) is bonded to the lightguide (1 of figure 2).

7. Claims 13-14 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wortman et al and Suzuki as applied to claims 12 and 24 above, and further in view of Masaki (U.S. Patent No. 5,940,571).

Regarding claims 13-14 and 26; Wortman et al and Suzuki discloses all of the features of the claimed invention except for the lightguide is operated comprises one of wedge, a pseudo wedge, a slab and a hollow body. However, from the same field of endeavor, Masaki discloses

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the lightguide (1 of figure 1) operated comprises one of wedge, a pseudo wedge, a slab and a hollow body (col.6 lines 1-45). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the optical element of Wortman et al and Suzuki with the lightguide is operated comprises one of wedge, a pseudo wedge, a slab and a hollow body as shown in the device of Masaki for the purpose of emitting light in a uniform surface luminance distribution.

Response to Arguments

8. Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dabby et al (3,891,302) teaches an optical film having a pattern which is an amplitude (Δ of figure 1) and a period (d of figure 1).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Sang Nguyen whose telephone number (703)308-6426. The examiner can normally be reached on Monday through Friday from 8:30 am to 5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Frank Font, can be reached on (703)308-4881. The fax phone number for the organization where this application or proceeding is assigned is (703)308-7722 or 7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

Nguyen/ sn

August 4, 2001


Frank G. Font
Supervisory Patent Examiner
Technology Center 2800